

source and the “hub” about the first elongate shaft, there is a new claim objection to the inconsistent use of a term in claim 8, and there are two specification objections regarding provision of antecedent basis for a radial rib configuration and providing support for elements 926 and/or 974 being an interstitial member.

The Applicants have carefully reviewed the March 10, 2003 Final Office Action. The Applicants are requesting entry of the foregoing requested amendments to place the claims in allowable condition.

The Applicants are proposing amendments to address the drawing and specification objections, specifically, amending the description of cavity 948 to include the parenthetical phrase “(also referred to as a chamber)” and the description of a housing 950 to include the parenthetical phrase “(also referred to as a hub).” As to the radial rib issue, the paragraph spanning pages 22-23 would be amended to reflect the fact that the portions of second elongate shaft 926 shown in the Fig. 11 cross-section view may be, for example, portions of a tubular or radial ribs. Finally, as to support for elements 926 and/or 974 being an interstitial member, the proposed amendments would expressly state that which is apparent in Fig. 11, *i.e.*, that in this embodiment elements 926 and 970 together form “an interstitial member between first elongate shaft 924 and third elongate shaft 970.”

The pending claim 8 objection would be resolved by entry of the proposed amendment to change the last word in the claim from “hub” to “housing” for consistency within the claim.

In view of the forgoing amendments, the Applicants request the pending drawing, specification and claim objections be reconsidered and withdrawn.

With respect to the pending rejections under § 102, the Applicants

For the reasons set forth in the following remarks, the Applicants believe that upon entry of the foregoing amendments, claims 1-3, 8-10 and 15-17 would be in allowable form, in addition to allowed claim 20. The Applicants respectfully request reconsideration of the pending rejections and issuance of a Notice of Allowance for claims 1-3, 8-10, 15-17 and 20.

1. The Claims Are Patentable Under § 102 Over The Cited References.

The Applicants respectfully traverse the rejection under § 102(b) of claims 1-3 as anticipated by Laine, claims 1-3 and 8-10 under § 102(a) as anticipated Rosengart, and claims

1-3, 8-10 and 15-17 under § 102(b) as anticipated by Lax. On the grounds that none of these references disclose or suggest all the limitations added in the August 14, 2002 Amendment.

In the Response to Arguments section of the Final Office Action, it is maintained that the Applicants have only limited the claims “by limiting the inner surface of the interstitial member shaped to engage only a portion of the outer surface of the second elongate shaft between the proximal and distal ends of the interstitial member.” April 9, 2003 Final Office Action at 6. It is then maintained that Laine, Rosengart and Lax each disclose this feature, specifically in Laine Fig. 4 (element 20), Rosengart element 76 (*e.g.*, Fig. 1) and Lax Fig. 6 (element 42). *Id.* The Applicants respectfully submit that the Examiner appears to have misinterpreted the language of the August 14 amendments.

In each of the three independent claims 1, 8 and 15, the Applicants added, *inter alia*, the limitation “the inner surface of the interstitial member shaped to engage only a portion of the outer surface of the second elongate shaft between the proximal end of the interstitial member and the distal end of the interstitial member.” Amended claim 1, lines 12-14. It appears that the Examiner has interpreted this language as only requiring the interstitial member to engage “a portion of the outer surface of the second elongate shaft,” rather than the more limited surface recited in the claim limitation: “a portion of the outer surface of the second elongate shaft between the proximal end of the interstitial member and the distal end of the interstitial member.” Thus, as presently written, claims 1, 8 and 15 recite a limitation that requires that the intermediate member engage only *a portion of a portion* of the second elongate shaft, *i.e.*, the portion of the second elongate shaft that is between the proximal and distal ends of the interstitial member. The Applicants respectfully submit that the present claim language is sufficiently definite, particularly in view of the record created by the present submission, and that no further amendments are required to claims 1, 8 and 15.

In view of the foregoing, the Applicants submit that it is clear that Laine, Rosengart and Lax fail to disclose this feature of independent claims 1, 8 and 15. In each of these references, the inner surface of the “interstitial member” is shown to be in full contact with the outer surface of the “second elongate shaft” along the entire length of the interstitial member’s inner surface (to the extent this interface is visible in the figures). Thus, none of these references disclose or otherwise suggest a device in which “the inner surface of the interstitial member shaped to engage only *a portion of the outer surface* of the second elongate shaft *between the proximal end of the interstitial member and the distal end of the*

interstitial member.” Accordingly, none of these references anticipate independent claims 1, 8 and 15 or their respective dependent claims 2-3, 9-10 and 16-17. Reconsideration and withdrawal of the pending § 102 rejections of these claims is therefore requested.

Conclusion

In view of the foregoing requested amendments and remarks, it is respectfully submitted that entry of the proposed amendments would place presently pending claims 1-3, 8-10 and 15-17 in condition for allowance along with allowed claim 20. The Applicants therefore earnestly solicit entry of the amendments and issuance of a Notice of Allowance for claims 1-3, 8-10, 15-17 and 20.

The Examiner is invited to contact the undersigned at (202) 220-4232 to discuss any matter concerning this application.

The Office is authorized to charge any underpayment or credit any overpayment to Kenyon & Kenyon Deposit Account No. 11-0600.

Respectfully submitted,



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MARKED-UP VERSION OF AMENDMENTS

IN THE SPECIFICATION:

First full paragraph on page 22, beginning on line 3 (previously amended):

Figure 10 is a plan view of a catheter 920 in accordance with the present invention. Catheter 920 includes a distal end 930, a proximal end 940, and a shaft assembly 922. Shaft assembly 922 comprises a first elongate shaft 924 having a distal end 934, a proximal end 944, and an inner surface 954 defining a lumen 932. Shaft assembly 922 also includes a second elongate shaft 926 slidably disposed within lumen 932 of first elongate shaft 924, which may function as the interstitial member[s] described above. A third elongate shaft 970 is slidably disposed within a lumen defined by second elongate shaft 926. In the embodiment of figure 10, a proximal portion 945 of second elongate shaft 926 extends beyond proximal end 944 of first elongate shaft 924. Proximal portion 945 of second elongate shaft 926 terminates with a proximal end 946. Also in the embodiment of figure 10, a slider 942 is fixed to second elongate shaft 926 proximate proximal end 946 thereof. A portion of slider 942 is disposed within a cavity 948 (also referred to as a chamber) defined by a housing 950 (also referred to as a hub). In a presently preferred embodiment, housing 950 is fixed to first elongate shaft 924 proximate proximal end 944 thereof. Also in a preferred embodiment, a plurality of indicia 952 are disposed on a face 955 of housing 950 proximate slider 942.

The paragraph beginning on page 22, line 18 to page 23, line 12:

Figure 11 is a partial cross section view of a distal portion of catheter 920 of figure 10. As described previously, catheter 920 includes a first elongate shaft 924, a second elongate shaft 926, and a third elongate shaft 970. In a preferred embodiment, third elongate shaft 970 forms a point 958 proximate a distal end 976 thereof. Third elongate shaft 970 also defines an injection port 960 in fluid communication with an injection lumen. A flange 972 is disposed about third elongate shaft 970. Flange 972 cooperates with a mechanical stop 974 in order to limit the travel of third elongate shaft 970. In a preferred embodiment, mechanical stop 974 is fixed to second elongate shaft 926 proximate to distal end 936 thereof, forming an interstitial member between first elongate shaft 924 and third elongate shaft 970. The depth which elongate shaft 970 will penetrate into a target tissue (e.g., a heart wall) may be adjusted

by moving distal end 936 of second elongate shaft 926 a known distance relative to distal end 934 of first elongate shaft 924. For example, a physician utilizing catheter 920 may urge slider 942 distally while visually observing the travel of slider 942 relative to indicia 952 of housing 950. In a preferred embodiment there is substantially a one-to-one relationship between the movement of slider 942 relative 952 to housing 950 and the movement of distal end 936 of second elongate shaft 926 relative to distal end 934 of elongate shaft 924. In the embodiment of figure 11, there is, preferably ~~preferably~~, interference fit between first elongate shaft 924 and second elongate shaft 926 to eliminate any slop, whether second elongate shaft 926 is tubular or comprises radial ribs, as illustrated in Fig. 11.

IN THE CLAIMS:

8. (Twice Amended) A catheter, comprising:
a first elongate shaft having an inner surface defining a lumen;
a second elongate shaft having an outer surface,
the second elongate shaft slidingly disposed within the lumen of the first elongate shaft;
an interstitial member disposed between the inner surface of the first elongate shaft and the outer surface of the second elongate shaft the interstitial member having a proximal end, a distal end, an inner surface, and an outer surface,
the inner surface of the interstitial member facing the outer surface of the second elongate shaft and
the inner surface of the interstitial member shaped to engage only a portion of the outer surface of the second elongate shaft between the proximal end of the interstitial member and the distal end of the interstitial member;
a housing coupled to the first elongate shaft proximate the proximal end thereof;
a slider disposed about the second elongate shaft proximate a proximal portion thereof;
wherein the slider is disposed within a chamber defined by the housing ~~hub~~.